

# The Impact of using Model of Marzano Gain Students the Ability to Configure an Integrated Conceptual Structure in Islamic Concepts

DR: omar alkhateeb.
University: Alhussain Bin Talal University
E-mail of the corresponding author:Omar58khteeb@yahoo.com

#### **Abstract**

The study aimed that The impact of using model of Marzano gain students the ability to configure an integrated conceptual structure in Islamic concepts the Sample included studious (120) student students the first year where of college of the educational sciences study in, two branches be organized in their choice was complete random among seven people at that the chapter, where one of the people counted experimental group and included (60) student and the random method chose in, as the group counted the other control group and included (60) student likewise. This hypothesis states that there is no statistically significant difference at the level  $(0.05 \le \alpha)$  in the conceptual structure of the Islamic concepts among students who learned using the Marzano model in learning and who have learned the usual way. to test this hypothesis has been calculating averages, the amount of the increase in average marks his experimental group was higher than the amount of increase in the average control group students 'marks and the study recommended to:

- 1. Adopting a Marzano in the teaching of religious concepts in the different grades. For being an important factor in the development of effective learning among students by having the students ability to apply knowledge in new situations and the ability to distinguish and to gain new knowledge and correcting misconceptions among students and admission basics of religion for understanding.
- 2. The need for training of students (teachers) in universities on how to use teaching strategies Marzano model for application in schools after graduation from University, to the importance of such strategies in teaching and the Reformation, as facilitating the process of gradual building concept, sequence in article submission and evaluation method in teaching the concepts of Islamic education.

**Key words**: marzano, conceptual structure, Islamic concepts

#### **Introduction:**

Became the subject of helping students to learn concepts effectively, and have an integrated conceptual structure of concepts contained in the platform's primary objective of school education, the basis for the process of reflection to achieve effective learning that makes an active learner acquires student learning effective and fruitful, grow learn more mental and cognitive effort and turned from negative to positive, and more educated when understands and is aware of the relationship, and when developing processes foresight to see things in a new image (WoolFolk, 1987) and (the trick, 2001) and learn concepts effectively can develop learning in the school environment if proper educational conditions and moral and material supplies (Dick werizr, 1999) this is due to the fact that educational research over the past two decades from a major shift in the vision of learning by researchers as turn attention from raising the question of external factors in the formation of knowledge such as: teacher as a personality variables, and clearly its, and enthusiasm and praise; raised the question of how the configuration of knowledge acquisition and the Being inside the mind of the learner, such as prior knowledge, and ability to remember and process information, and how the meanings of concepts at the learner's role in understanding such meanings and relations between these concepts together.

The Auzobl theory of meaningful learning, Biage the Guide to lots of research teaching concepts, as it basically assumes that the learner's previous knowledge is the main factor in building and organizing knowledge in a knowledge structure. The cognitive architecture is a framework includes a set of facts, concepts and theories and issues that the students are able to do new things, not simply repeating what I did earlier generations, the students have

innovation and have the ability for invention, discovery, (Salama, 2002). (Al-Jarah, 2002).

Marzano's model is the learning dimensions of teaching task models from Auzbl theory (Ausubel), 1968) and the theory of Brunner (Bruner, 1960) about the process of learning and ideas Jagne (Ganee) which has organized educational content in a hierarchy, and Merle (Merill) which emphasized the need to summarize the ideas, and to clarify the relationship between the parts of knowledge on various topics within the lesson. And Norman (Norman) which underlines the need to organize the concepts in a concept network shows the interrelationship between them, (Qutami and others, 2005), (Albali, 2003).



It designs and models that have a significant construction, installation starts in which learners find the problem, and they complete the cycle of education by developing concepts and announcements list to their work and therefore proposes a most influential education and is aimed at making students literate able to develop themselves and their abilities to make them able to continue learning throughout their lives (Marzano and others, 1999) is a form of learning that Marzano was derived from draft dimensions reflect (Thompson, 1999) translated by faithful and honest academic issues and raising human fill the mind with its handling of HTTP as thinking training helps a new connections between nerve cells, allow to think that walking across the new paths of the mind, contribute to the increase of the work of the mind, leading to work better, faster and with higher efficiency (Albali, 2003) and can be used by teachers from kindergarten through high school addition To be used in the stage of university education, with the aim of improving the quality of teaching and learning in any area of specialization (Marzano & Others.2005; bird, 2007; Mushaqaba; 2008) and Marzano on model assumptions the following basics:

- 1. Education should reflect how learning occurs best know.
- 2. Requires learning a complex pattern of interactions involving the five dimensions of learning.
- 3. Education, which focuses on large, multidisciplinary approach is the most effective way and the development of learning.
- 4. Should include curriculum teaching of learning trends and perceptions and mental habits to all levels of education, from kindergarten through high school.
- 5. Comprehensive approach to education has at least two types of education, one more teacher (Teacher-directed) and one more order for student (Student-directed)
- 6. The calendar should focus on students ' use of knowledge and complex reasoning more than low-level information retrieval (Marzano and others, 1999).

# The dimensions of learning model of Marzano

Marzano see that learning process requires and includes interaction between five dimensions of learning which are:

#### The first dimension

Formation of positive attitudes and perceptions about learning (Positive altitudes Perceptions about learning) through: creating classroom environment such as seats and decoration, space and hygiene conditions that relate to classroom tasks such as:

- 1-Make sure to remove the suspended students 'minds from previous lessons.
- 2-Link previous topic new topic
- 3-Attracting the attention of the students to the new topic of the lesson, to motivate and develop their motivation. The second dimension: knowledge acquisition and integration. (Acquiring &integrating knowledge)

It means helping students to acquire new knowledge and integration with prior knowledge (Marzano & Others 2005); (Jaafari. 2007)

Third dimension: the deepening of knowledge and refinement (Refinement of knowledge & Extension.

The stimulate thinking of students to deepen and expand knowledge through the following activities:

1-Comparison Comparing: by defining and identifying similarities and differences between things.

Classifying: classification and grouping things converged under the categories can be defined on the basis of certain characteristics.

- 2-Inducing: induction and reach or previously unknown, generalizations drawn from analysis or reviews or principles known.
- 3-Elicitation Deducing: and the results are not known from principles and generalizations are known.
- 4-Analyzing Errors: error analysis and identify and examine errors in thinking at the individual and at others.
- 5-Construction of supporting evidence: Constructing Support and build evidence to support and confirm the fact-specific.
- 6-Abstract: Abstracting and defining the idea or the general pattern of information.
- 7-Analyse views Analyzing Perspectives: the definition and identification of individual vision and others opinions and perspectives on learning (Marzano, 1999) (Marzano & others 2005).

The fourth dimension: the use of meaningful use of knowledge using knowledge meaning fully))

At this stage is to help students apply that themselves and direct them to everyday life situations.

Through five learning styles are: decision making, and polling, research, problem solving, and invention (Marzano & Others 2005) (Solomon, 2004; Hajaya, 2010).



Learning styles that allow students to make meaningful use of knowledge are:

A. decision: means the process by which to answer questions, like: what's the best way to...? Which of the following is most appropriate in...?

B-research: means the process by which identify the principles behind phenomena, and forecasts around, and test the validity of the predictions. Produced through the questions, like: what is the definition of.....? What properties.....? What are the General features.......? How happened.......? For what happened.......? What if......? What happens when......?

C-problem solving: the answer to questions such as: How can I overcome these obstacles? How do I get to the way....? How can objective......?

D-invention: means the process which results in the creation or creating or configuring something desirable and this is accompanied by questions, like: what's the best way to...? What are the new ways to.....? What do you want to be a. a..?

E-poll: is the process of resolving the issue of new or familiar by finding information and hard facts, and check test and organize information and expanded, and conclusions regarding the matter, and then examine the results to test validity, and final presentation about the solution to this issue "(Mushaqaba, 2008).

Fifth dimension: productive habits of mind (Productive Habits of Mind):

It is also known (Perkins) as Qutami, and others (2005): "it's a pattern of behavior that leads the learner into smart knowledge production. Means of production that cannot be returned to the previous pattern, and not be recalling ". And defined by Viorshtin and Aness as Qutami, and others (2005): it's a combination that includes making tests about which types of mental processes that should be used at a certain time if you encounter problems or new experience requires a high level of mental processes use skills effectively, implemented and maintained.

Mental habits are transformative, and intelligences that help students learn any experience in the future, so called modern education methods to be mental habits target in all levels of education (Marzano, 2000)

Marzano has identified (1992) to the fifth dimension mental habits called productive habits of mind (Productive Habits Of mind) is:

- 1-Thinking and learning organization self (Self Regulation Thinking & Learning) through educating students that thought process.
- 2-Critical thinking (Critical Thinking) with distinction the student behavior, and a clear and precise attitude.
- 3-Creative thinking and learning (Creative Thinking & Learning) student out of the ordinary when the idea of solving a problem, or an opinion.

The mental habits should be defined and delivered to students until they are learned, the use of mental habits among people is not noted, and if not directly aware, so Marzano put a number of strategies that can be used by the teachers to make students 'habits of mind including:

- Use events or experiences for some of the characters.
- Use of stories reflecting the lives of the characters.
- Use of student attitudes with their personal goals.
- Use problems Academy seminar (Qutami, and others 2005)

Marzano sees: the development of positive attitudes towards learning (first dimension) and the development of habits of mind (the fifth dimension) can be as educational objectives sought to be achieved, any module in any content class, and at any level of education, and the Center and the environment must be presented within the academic content and animate these dimensions can be considered as the base and the base and directed the teacher when planning and decisions regarding other dimensions, II, III and IV (Marzano, 1999) to create effective learning, learning concepts in an effective way is a very fundamental objectives of education, and a thought process which emphasizes linking concepts together by building bridges between them. The most important characteristic of the times in which we live, (Leach, 1977) and (Mari and Balqees, 1983), (Walker, 2002).



And insider research and studies on Islamic concepts and methods to study (A-Jalad, 2000), and study (Odea 2001) and Al-Khawaldeh and others, (2001) and the recommendations of educational development first year (1988), realize that attention to teaching Islamic education concepts on a goal of education is to develop the student's mentality.

Which provide brain facts clear about this religion between the thick fog of untruths opponents, reared in the possessive right criticism which strengthen the principles, doctrines of the calendar, and discriminate – in the tendencies of thought and behavior — the wheat from the chaff, you take the good, the bad and harmful.

They also lead to the emergence of a new spirit of sincere faith, work product, and strong determination, so that renewed confidence in their leadership and fade the intellectual and psychological factors of defeatism, and eliminated the incurable disease symptoms of inferiority.

Which also lead to the emergence of a new spirit of sincere faith, work product, and strong determination, so that renewed confidence in their leadership and fade the intellectual and psychological factors of defeatism, and eliminated the incurable disease symptoms of inferiority.

Despite the attention to the concepts of Islamic education and the use of modern methods of teaching, but mostly on teaching methods is to follow the traditional ways of dealing with the basic class concepts, facts and information for conservation, thus students grades collection described by students as smart or repeaters and duds curriculum (Al-Khawaldeh and others 2001).

To get out of this problem, modern education has tended to focus on building curricula and organizing content; it helps in understanding the article to become more inclusive and help in the transition of the impact of learning and organizing details in structural framework facilitates learning (Bruner, 1960).

This led some modern methods of teaching, such as: model of Marzano is to adapt the curriculum material and method in terms of simplicity and complexity with the learner's abilities, and also contribute to the concepts in the collection process, particularly to provide students meaningful have lead to progress rapidly, and remember the details for longer, moreover, is the verbal learning and correcting the erroneous concept and they have to accept the basics of religion for understanding and convince the footing as this affects students learning in their lives and to modify their behavior.

And the teaching of religious concepts and organization of religious information in this form may contribute to the development of Islamic knowledge among students in various stages of education whether public education or other types of education, and especially in light of the following grounds:

- 1. Broad religious truths which the learner is supposed to teach.
- 2. The need to adapt the concepts with the capabilities of the learners and work to increase their achievement.
- 3. Work to correct mistaken religious concepts.

Due to the importance of the acquisition of concepts and their impact on improving the students' reality and the need to get rid of the wrong understanding of the concepts and enrich the understanding of concepts and configuration of integrated conceptual architecture concepts, the study of the impact of using model looking for a conceptual structure Marzano to concepts of Islam.

## The study problem

The scholar noted during education concepts Islamic-at least 10 years-the low level of students in the composition of the conceptual structures of Islamic concepts included in their curriculum, and thus lies the problem of the study in the main following question:

"The impact of using model of Marzano on conceptual structure configuration integrated Islamic concepts of Al-Hussein Bin Talal University students"

# The theory of the study:

Formulated the hypothesis of the study as follows:

There are no significant differences at the level of ( $\alpha \le 0.05$ ) in the conceptual architecture students who learned Islamic concepts strategy Marzano and conceptual structure of students who learned Islamic concepts as usual.



# The objectives of the study:

This study aims to determine the impact of model Marzano on conceptual structure formation of Islamic concepts

# The importance of the study:

This study may help in identifying modern strategies had to accept the basics of religion for understanding and convince.

1-Can meet the needs of research in the teaching of Islamic education in General.

2-Alert the teachers need to focus on the concepts of tribal students before you begin the learning process and you know some models of education to deal with concepts.

## Terms of study

Marzano: paradigm is a set of strategies used by the researcher in the study, with five dimensions:

**First**: the first dimension: formation of trends and positive perceptions of learning and planning for classroom teaching, within the use of positive behaviors as reinforcement to accept students to learn.

The second dimension: knowledge acquisition and integration: through the know how to help students build and organize the information that helps to build on and create forms and composition skills.

**The third dimension**: expanding information through activities which will be used to help students expand their knowledge, deepening and refinement.

The fourth dimension: use information meaningfully and is the main issue, and the number of issues or topics to be identified and taken into account, and who will build tasks, and what types of products and innovations anticipated by students, and how can students work in collaborative groups?

The fifth dimension: know mental habits that seek to confirm it? And what these habits commensurate to the tutorial

Researcher aims of applying this model to achieve the following objectives:

- 1-To promote discussion and networking.
- 2-Encourage students to use their own in their concepts and perceptions.
- 3-Raise the students 'thinking about the new functions.
- 4-Exploring alternative scenarios of the concepts presented.
- 5-Deepen understanding among students.
- 6-Reconstruction of concepts.
- 7-Elaboration of concepts learned.
- 8-Development of concepts in the form of a conceptual schema.
- 9-Explore the concepts relevant within the buildings students conceptual.
- 10-Build the relationships between concepts.
- 11-Search for links and relationships between concepts.
- 12-Conceptual mapping of the concept.

The researcher also aims to apply this model to achieve the following objectives:

1-Conceptual structure configuration integrated Islamic concepts that will be studied for a degree of not less than 50%.

# The conceptual architecture:

Hurd knows: as a network of interrelated concepts in a structured manner, showing the links between these concepts, it is not a random or even qualitative system connects them (Al-Zoubi and Obidat, 2003).

They own the Al-Hussein Bin Talal University students the conceptual architecture of Islamic concepts: (revelation, religion, doctrine, prophecy, morality, worship, legislation) and put it in the form of interconnected network in an organized manner so that the relationships between these concepts in the form of a qualitative system away from indiscriminate collection, conceptual architecture is measured in this study, the test consists of four questions and 10 branches total marks per question them (25) mark.

Conceptual structure grouped for the purposes of this study to:



# A. coherent conceptual structure:

The student learner concept coherent structure if the owner got the sign (50%) or above on the test design concept maps adopted by this study, four questions and 10 branches.

# **B.** conceptual singular structure:

The student learner's conceptual structure owner disassembled if lower than (50%) to test the design concept maps adopted by this study, four questions and 10 branches.

# **Islamic concepts:**

A group of Islamic concepts studied by Al-Hussein Bin Talal University students in the first semester of the academic year 2013-2014 are: (revelation, religion, doctrine, prophecy, morality, worship, legislation).

#### **Concept maps:**

Known Novak (Novak, 1995) as a way to represent the structure of knowledge which can be understood as a synthesis of concepts and relationships between them and claiming issues or principles are organized in a pyramid building.

And that bolt (Bolte, 1999) as a vertical hierarchy where concepts are classified under each or as a Web Spider to be parts of knowledge

(Concepts) and associated relations constitute a simple linear series or compound.

For the purposes of the study is defined as a representation of a set of relevant concepts in a hierarchical manner, where in the key concept and grading to less public perception and concepts down to the base of the pyramid topped with the words written contributed link for expressive and meaningful sentences between two or more concepts.

## **Al-Hussein Bin Talal University students:**

Their regular first-year students in the Faculty of education at the Al-Hussein Bin Talal University in the first semester of the academic year 2013-2014.

# The study:

- 1. This study was limited to a sample of Al-Hussein Bin Talal University students in the first semester of the academic year 2013-2014.
- 2. The results of this study are determined partly by the properties of the measuring instruments used and their ability to detect differences between students in the conceptual structure configuration for Islamic concepts.

# **Related studies:**

The researcher viewed a range of studies on strategy Marzano on brain-based learning dimensions, these studies are:

Study of Den Tarleton (Tarleton, 1992): to examine and investigate the impact of the programme strategies to help learners identify teaching behaviours that induce various types of thinking when students and his father (Colorado) so difference of formed educated volunteers to learn the dimensions of learning model and strategies through this form in the classroom. This study took place in two stages, first: help teachers to change behavior, by identifying effective model dimensions of learning in the development of thinking and learning, and the second was to measure the impact of the implementation of the learning dimensions of thinking and achievement of students, through the training of teachers to use teaching methods included in the form. This was achieved by using several models of assessment such as: questionnaires, tests the ability to remember, and benchmarks, and video recordings. The results revealed a statistically significant difference between experimental and control groups for the experimental group, the experimental group outperformed the control group in most tasks.

Study Dugari anno Rada (Dugari, 1994): to identify the impact of the use of the second and third dimensions from the dimensions of learning model for students studying science in the scientific section of the University, and the University (Delaware state university) in 1994, and through the teaching units of decision Science for four weeks, then were investigated following the dimensions in the improvement of the collection, and the sample of the study consisted of (60) students, divided randomly into two groups and pilot control, each group consisted of 30 students, the results indicated a statistically significant difference between experimental and control groups in achievement for students in a pilot group, also noted the results of the experimental group to



prefer using the strategies form so they can be used to improve learning science.

**Study of Helen Apthorp (Apthorp, 2000):** aimed at evaluating the dimensions of learning in schools by province (Kirkland) in America, with about 70 teachers with their students, where he conducted a comprehensive survey about practices and the results of the survey items focused learning dimensions to the first and fifth dimensions model dimensions of learning, the results indicated that the level of self evaluation for both teachers and students indicates that there is a link between the first and fifth dimensions. The results showed that, as practice for the first dimension given the high level of acceptance for students of the fifth dimension.

It also aimed Baz study (2001) to identify the effectiveness of the use of a form of learning dimensions in teaching chemistry to the collection and think about the compound and the trend towards Article of the first year of secondary students in Bahrain, and the results indicated the presence of statistically significant differences in favor of the experimental group, which refers to the effectiveness of the Dimensions of learning model in raising the achievement level of the compound thinking (decision-making, critical thinking, and creative thinking) and the trend towards chemistry.

Albali (2003) study aimed to measure the effectiveness of the use of Marzano's model of the dimensions of learning in the teaching of science in the collection and the development of some of the science operations at the Second Prep. The study sample consisted of 159 students in the Bilal bin Rabah School in (the province of Al-Galuobia - Egypt) were divided into two groups, the experimental group consisted of 81 students, and the control group consisted of 78 male and female students. The results of this study, and no statistically significant differences between the average of the experimental group students of the signs and the control group students average scores in both tests, test grades, and test the science operations for the experimental group.

The Salamat (2007) aimed to study the impact of the learning model based on the dimensions of the Marzano in the collection of physical concepts and critical thinking skills, and attitudes towards physics strategy survey. The number of members of the study (60) students, the study sample was divided into two groups, the first trial and the number of thirty students. The second officer and number thirty students, in Hosni Fariz School in the city of Salt, the study found the existence of a fundamental difference between the averages of students marks.

The aim of Asfour study (2007) to measure the effectiveness of the effectiveness of the learning model dimensions in the development of some of the thinking skills among secondary school students in the subject of sociology at one of the schools of the province (Cairo) was test application through the application on the unit in its decision on Article (84) secondary students from the third grade, were divided into two groups, the first trial and the number Forty-three students, and the second officer and the number Forty-one student, and the study was limited to the first and fifth dimensions of learning, and the results indicated that there is a difference between the two groups in the test thinking skills for the benefit of experimental group results also indicated that there is a difference between the two groups in the post application for the **experimental group**, **the study also pointed out that the model is characterized by Marzano efficiency.** 

Al Mushaqaba study (2008) aimed to measure the impact of learning model dimensions Marzano in achievement and the ability to solve mathematical problems among students basic stage actress seventh grade in Jordan. Number of members of the study has reached 106 students; the school was chosen to participate in the study, deliberately, Al-Olemat neighborhood school district in the city of Mafraq, members of the study were divided into two groups: control group (54 students), and experimental (52 students), was the achievement test procedure, and test the ability to solve mathematical problems . The results led to the existence of a fundamental difference in achievement posttest for the experimental group, and the results have resulted in the existence of a fundamental difference in the ability of students to solve mathematical problems.

The aim of the study Alhjaya (2010) to measure the impact of Marzano's model of learning in the grammatical concepts and skills development of oral expression fundamental stage in Jordan, has reached the number of members of the study (147) students from seventh grade students, were chosen deliberately from phosphate Boys and Girls schools from Hasa region (Tafelah) in the second semester of the academic year 2008/2009, and then were divided members of the study into two groups, the first trial is divided into (38) students and 46 female students, and the second controlled divided into (37) student, and (36) Student, and resulted in the results to the existence of differences in favor of the sections group pilot in the collection of concepts in the development of oral expression skills attributed to the use of the teaching model, and the results have resulted in the absence of differences in the development of grammatical concepts in the development of oral expression skills due to the interaction between sex and the use of teaching model.



# **Commenting on the previous studies:**

The results of previous studies agree on that student who has studied using strategy Marzano on peers than who studied on the traditional ways, and can be seen through:

- 1 -increased achievement in teaching materials, and improvements in learning processes.
- 2 -Develop the skills of students and their development and improvement in attitudes.
- 3-The interest of researchers in Arabic studies and foreign teaching models in General, applying the model of Marzano on the various levels of education, and teachers for the development of teaching practices and behavior. 4-This is the first study of its kind in Jordan, known researcher which addressed the use of our conceptual structure configuration Marzano.

#### Method and the measures

#### 1.Individuals studious:

Sample included studious (120) student students the first year where of college of the educational sciences study in, two branches be organized in t heir choice was complete random among seven people at that the chapter, where one of the people counted experimental group and included (60) student and the random method chose in, as the group counted the other control group and included (60) student likewise.

## 2.Instruments studious:

Two instruments studious were used:

- 1. Test forming of the conceptual structure in the Islamic concepts.
- 2.Instructional program to form conceptual map.

While describing of each instrument:

**Firstly:** Test forming of the conceptual structure for the students: The Sample promises this test for investigation the conceptual structure at the students studious for the next concepts (the revelation, the debt, the belief, the prophecy, thecharacters, the worship, the legislation) and choice of the conceptual map as instrument of evaluation in this study was complete.

# Stages preparation of the test:

Review of the literary study related through the use of the conceptual maps as instruments were complete the evaluation; Of which form research in identify constructive knock and evaluation of the conceptual maps, and statement the even concepts, and her tariffs, and despotic 'gain t he students for the needed skills for the constructive maps conceptual, and possession of the concepts, and ties of the concepts in relationships, and specification of this relationships.

Preparation of the test in several steps was complete came in the following manner:

**The first stage**: Preparation questions of the test.

- 1.Restriction of the wanted concepts was complete teaching her and she is (the revelation, the debt, the belief, the prophecy, the characters, the worship, the legislation) for analysis secured defined for this concepts.
- 2. Specification of the instructional wanted goals was complete investigation her.
- 3. Number the concepts chose which considered that she rest of the concepts in the a bility on the detection about range ability of the student in elucidation be equal with the brown article and her transformations among rest the concepts; Choice of the next concepts was complete (the revelation, the debt, the worship, the characters) among the concepts for test demanding in her.

Questions test adherence of the conceptual structure for the students from four questions were formed came in the following manner:

The first question: Is text of taking the understandable revelation, and his sections, and portrayed him, and the purpose from him, and request the students conceptual drawing of map appears the main concepts, and subsidiary, and the relationships between the concepts, and the pyramidal sequence for the concept.

**The second question**: Is conceptual map deaf concept the debt, besides list in the concepts which included on her the understandable debt, and other list included group the associations, and requested the students emptying of this concepts and the links between her on the deaf map.

**The third question:** Is conceptual map for concept the worship, the concept included, and his characteristics and the links between her, and request the students' conversion of this map to scientific connected text.

**The fourth question :** Is concepts arranged arrangement of random with group words of the link for concept of the characters, and request the students forming map of conceptual appears the main concepts, and subsidiary, and the relationships between the concepts, and the pyramidal sequence for the concept. 4.The questions on group the arbitrators expanded how the building article test of the



conceptual map for the rule during importance that concepts in elucidation examined where measure of some modifications was complete on him and in that containers of the test truthfulness of the content.

5.The 50 exploration sample from society applied studious students test on students the enough opportunity for the answer formed from and four questions give the on questions of the test and her number, and that after explanation was complete intentionally the conceptual map and giving of two examples on her for article doctrine of the worships for subject of the purity, and article of sciences modern for subject modern recurrent.

6.Application of the test on the exploration sample returned himself after three weeks from his application for the first time and that before the beginning in application studious. For purpose measuring steadiness of the test losing account treated of the steadiness was complete according to treated connection of Pearson between signs of the students on him in the first time and their signs in the second time so was evaluated him (0.86) of which indicates until the test enjoys in suitable degree of steadiness.

7. Accordingly what stages preparation of the test and his advance arbitration and trying his, measures of the constructive test enough considered to achieve the logical truthfulness, faithful light steadiness of the test and his truthfulness considered the test suitable for measurement of adherence the conceptual structure with the students.

Method correction of the conceptual map and it is the instrument which measurement possession of the conceptual structure depended for:

For purposes of this study the next criteria for correction of the conceptual map the characteristic in test of possession the conceptual structure:

1-The concepts: The concept includes and level understandable, and the pyramidal sequence for the concept, and citation enables it all at status understandable. Where sign one gives for each understandable veins in the map, and half of sign about all level in the pyramidal sequence, and half of sign about all relationship correct between two neighboring concepts vertical.

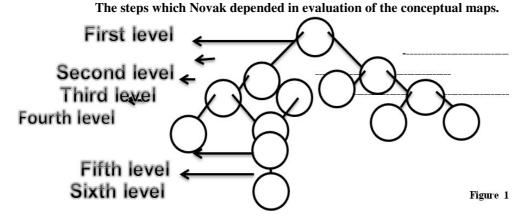
2-The link: The division and words of the link which puts her the trained for link understandable with other where half of sign for the division gives first, and half of sign also for the next divisions which emerges him. Sign of one for each link gives two retinal horizons between two concepts, and half sign of each word correct ties between two concepts.

3-The examples: The example and he the level most charitable in t he conceptual map where half sign of each example gives the concept returns on.

This criteria agrees with which Novak mentioned (Novak, 1995).

Dependency on these criteria so formation of the end smallest for test the conceptual maps (50) degree.

The (1) form shows example of the steps which Novak depended in evaluation of the conceptual maps:



So the shown map in the form is number (1)deserves (7) detailed points in the following manner: 1. point for the first level, and three point s for each level from second and third.

2. The fourth level and fifth no points because it didn't give any branch.

**Secondly**: educational material is divided into:

- 1. Educational material particular Marzano model in learning.
- 2. Special educational material in a way normal education.

First: Article instructions own Marzano model in learning has been prepared according to the following steps:

A. analyzed Islamic concepts subjects under study and extracted concepts and generalizations contained therein.

- B. Divided into sub-Islamic concepts revolves around each particular idea.
- C. Derived from these concepts general objectives and special focused on having students' mental skills supreme



skill analysis, classification, installation and the ability to form a conceptual outline of the concept of mapping the conceptual.

- D. Chosen a number of examples described the concept, and divided these examples belong to the examples and the other is affiliated.
- E. Allocated for each of these concepts, the concept of special lectures, where the total amount of all the lectures (22) lecture.
- F. Prepared according to memos school Marzano model in brain-based learning concepts selected and numbered (8) Notes covered all the basic concepts and sub-concepts contained in the subject of the study to be taught, also included educational goals formulated in my behavior.

The researcher in teaching goes according to Marzano model according to the following chart Figure (2).

# Figure 2

Formation trends and positive perceptions about learning.

1

Knowledge acquisition and integration through the provision of the issue and ask questions on them.

 $\downarrow$ 

Expand knowledge and refine it through the students directed towards the exploration process and discuss the students to answer questions.

1

Use the knowledge to use meaningful by directing students to formulate hypotheses and to develop expertise in the subject to understand and transport image.

L

Discuss the goals of the learner with knowledge of students' ability to build models and advanced conceptual maps

# Figure 2

G. Notes have been offered on a group of arbitrators, and asked them to express their opinion in the notes to the extent of representation Marzano model in brain-based learning.

**Secondly:** educational material for the usual way of education. Has been prepared according to the following steps:

- A. Study analyzed the position of Islamic concepts and themes extracted concepts contained therein.
- B. Derived from these concepts general objectives and special focused on clarifying the concept, and his explanation.
- C. Allocated for each of these concepts, the concept of special lectures, where the total amount of all the lectures (22) lecture.
- D. Memos prepared in accordance with the school through regular education (the lecture) that depend on dumping. Where he covered all the basic concepts and sub-concepts contained in the subject of the study to be taught, also included educational goals formulated in my behavior.

**Fourthly:** students training procedures in the experimental and control groups to form a conceptual outline of the concepts for the purpose of conducting integrated conceptual structure of the students, according to the following steps:

- A. The definition of experimental and control groups students in their first encounter with the search topic researcher who conducted by researcher and tasks required of each of experimental and control group.
- B. The researcher gave two lectures in a row for both the experimental and control groups following concepts (Purity, frequent talk). He knew the students how they built their conceptual maps of these concepts.
- C. The researcher developed a training workshop model include procedures to be followed in the formation of an integrated conceptual structure of concepts.

# Study design and statistical treatment:

This quasi-experimental study, the selection of the sample was randomly. It is based on the fact the impact of Marzano's model of learning in the formation of an integrated conceptual structure in Islamic concepts at Al-Hussein Bin Talal University students.

Variables of the study: In this study, the following variables:

- A. The independent variable: the impact of the Marzano model in brain-based learning.
- B. The dependent variable: the students' performance on the test the cohesion of the conceptual structure.



The group that studied the Marzano model was considered experimental group, while the group that studied in the regular way was considered control group.

The impact of this model has been measured with the following indicators:

A.The success rate between the experimental group and the control group

B. The coherence of the conceptual structure of the students in the experimental group and the control group.

## Results of the study

This study aimed to model the impact of Marzano in learning to form an integrated conceptual structure of concepts survey, compared with the usual method of teaching and after the application of the study procedures as mentioned previously obtained the following results:

# Results related to the hypothesis of the study

This hypothesis states that there is no statistically significant difference at the level  $(0.05 \le \alpha)$  in the conceptual structure of the Islamic concepts among students who learned using the Marzano model in learning and who have learned the usual way.

To test this hypothesis has been calculating averages, and standard deviations for signs of the two students in the control and experimental testing cohesion Conceptual structure, as shown in Table 1.

Table 1

Туре	experimental		contr			control		
Test	pre		Post		Pre		Post	
Effectiveness Index	average	Standard	average	Standard	average	Standard	average	Standard
		deviatio		deviatio		deviatio		deviatio
		n		n		n		n
conceptual structure tes	45.150	9.068	68.200	8.938	38.383	10.029	49.167	10.193
t								
total	316.63	6.089	339.48	22.481	326.08	19.372	330.98	21.366
	3		3		3		3	

Table 1

Averages and standard deviations for signs of the experimental group and control group students in the tribal tests and post special consolidating conceptual structure of the students.

Notes from table no. (1) that the average marks of experimental and control groups of students has increased, overall test post in the tribal test, the amount of the increase in average marks his experimental group was higher than the amount of increase in the average control group students 'marks. The average rate for the experimental group 68.2, while the average rate for the control group 49.1 which indicates that students who have learned using a model learning they appreciate Marzano on coherent conceptual infrastructure configuration concepts of students who learned in a normal education.

To find out whether there are significant differences between the use of model learning and Marzano education standard has been used accompanying variance analysis (ANCOVA), according to the results of the analysis as shown in table (2) to the existence of significant differences at the level of (0.0001) using form Marzano in learning and teaching method in normal students 'ability to build a coherent conceptual structure of concepts.

Table 2

Source of	Squares	DF	Sq. mean	F	sig
variation	sum				
Post test	3051.908	1	3051.908	45.825	0.0001
marzano	6338.872	1	6338.872	95.180	0.0001
error					
total		118			

Table2

The results of analysis of variance associated with the performance of his experimental and control groups on the conceptual map CON-test Post

As appears from the table (3) than students in the experimental group, control group to test the conceptual maps.



#### Table 3

Total	Numb	Passed	Success rate
Experimental	60	60	7.100
Control	60	28	<sup>7</sup> .47

Percentage of students who passed the test of concept maps

Referring to previous studies showing that the results of the study carried out by the researcher agrees with the results of a study of both (Tarleton, 1992); (Dugari, 1994); (Apthorp, 2000); (Baz, 2001); (Albali 0.2003); (Salamat 0.2007); (Asfour, 2007); (Al Mushaqaba 0.2008); (Alhjaya 0.2010), where the results of these studies showed the superiority of teaching according to Marzano model in achievement among students.

This indicates that the teaching model Marzano has a clear impact in the formation of a coherent conceptual structure of the students, which is shown by the experimental group test results in the test design conceptual map that represents a graph resembles the conceptual structure owned by the individual learner, where the average rate of the experimental group 68.2, while the average the rate of the control group 49.1.

# This can be explained as follows:

1. Have students of the experimental group of skill-building concepts based on clarification of the meaning of the concept, and the concept, and the growth of the concept and characteristics of the function concept, which increases the effectiveness of the learner's knowledge and mental capacity. The conceptual construction of key factors that affect the effectiveness of learning, possession or conceptual structure of learner's cognitive subject of clairvoyance relations between concepts which connects the effectiveness of knowledge and develop mental abilities.

2.The students in the experimental group have skill link relationships between concepts that relate concepts between relations according to the nature and location of business concepts to the public at least the concept down to example, which increases the effective knowledge of the learner and the ability of students to form a coherent conceptual structure concept, conceptual architecture is a network of interrelated concepts in a structured manner showing relationships between these concepts.

These results are what the researcher wanted to achieve through the use of Marzano modal in teaching and has activities helped the trainees to acquire the skill of linking concepts together by relationships. Depending on the nature and location of business concepts to the public at least the concept down to example; in order to clarify the meaning of the concept, and levels, and characteristics of the growth function to acquire the skill of concepts to the trainees, which reflected on the members of the experimental group positively in the improvement and development of their own abilities to acquire this skill and ability to debate, analysis, interpretation, and evaluation and elaboration of concepts and put them in a conceptual schema, a concept map.

# **Recommendations:**

I have used in this study as a teaching strategy relied on the model of Marzano

In the teaching of undergraduate students in Islamic concepts (revelation, religion, faith, worship, morals prophecy legislation) used in this study is a set of tools to detect the impact of this strategy in the light of the findings of this study recommends the following:

- 1. Adopting a Marzano in the teaching of religious concepts in the different grades. For being an important factor in the development of effective learning among students by having the students ability to apply knowledge in new situations and the ability to distinguish and to gain new knowledge and correcting misconceptions among students and admission basics of religion for understanding.
- 2. The need for training of students (teachers) in universities on how to use teaching strategies Marzano model for application in schools after graduation from University, to the importance of such strategies in teaching and the Reformation, as facilitating the process of gradual building concept, sequence in article submission and evaluation method in teaching the concepts of Islamic education.
- 3. Follow-up study using the same strategy in other articles from other Islamic education materials.

#### **References:**

Al Zoubi, Talal and Obidat, Hani. (2003). the impact of the adoption of the principles of constructivist theory science teachers during their teaching of scientific concepts in the collection of their students to the concepts and conceptual structure integrated with configuration. the literary magazine of applied sciences 7 (1), pp. 147-160, Amman.

Aljalad, Majid .(2000) .Islamic education in Jordan. I 1, Amman International Institute of Islamic thought.

Aljalad, Majid. (2000). Islamic concepts and teaching methods. Yarmouk research, vol. 16, no. 3, 63-79.

Aljarah, Radwan. (2002).the impact of the use of concept maps in the collection of the ninth grade students' basic concepts in biological sciences. unpublished ma thesis, Yarmouk University, Irbid.



- Alhela, Mohammed.. (2001) teaching methods and strategies. 1st floor U.A.E., University book House.
- Al-Khawaldeh, Nasser Ahmed Eid, Yahya Ismail. (2001). Methods of teaching Islamic education, methods and practical applications, Amman: House of Hanen for publishing and distribution.
- Albali, Ibrahim. (2003). the effectiveness of using a form of education in Marzano. teaching science in academic achievement and the development of some science, operations at second grade secondary school. Practical parenting, (4), pp. 65-94.
- Al-Jaafari, Munir Muhammad Hussein. (2007) .the impact of the inductive method and advanced in the collection request for secondary stage of Hadith science concepts and attitudes towards it in Jordan. unpublished doctoral dissertation, Amman Arabic University for higher studies Amman, Jordan.
- Alhajaya, Qasim mizel. (2010) .the impact of using model of Marzano's education in the development of grammatical concepts and skills of oral expression to students in the basic stage in Jordan, unpublished PhD. thesis, Amman Arabic University for higher studies Amman, Jordan.
- Al Mushaqaba, Talal Tael (2008) .the effect of using teaching strategy based on model dimensions of learning marzano learning and solving math problems to students in the basic stage in Jordan. unpublished doctoral dissertation, Amman Arabic University for higher studies Amman, Jordan.
- Apthorp, Helens (2000). .Dimension of Learning for Kirkland School District-Reports-Research-Eric.Ed.463941.
- Ausubel, D. (1968) Education in Psychology, Cognitive View. New York, Holt Rinehart Winston.
- Alsalamat, Mohammad Khair, Mahmoud .(2007) .the impact of using model-based strategy Marzano to keep learning for students in the basic stage in the attainment of physical concepts and the development of critical thinking skills and attitudes toward physics.doctoral dissertation published, Amman Arabic University for higher studies Amman, Jordan.
- Asfour, Iman Hassanen. (2007) .effective sample dimensions of education in the development of some thinking skills for high school students in sociology. reading and knowledge magazine, number (63), pp. 116-154.
- Baz, Khaled Saleh. (2001). effectiveness of using a form of learning in Marzano teaching chemistry to the attainment and composite thinking and direction towards the article in first graders of the maritime secondary school. Egyptian Association for educational process, the 5th Scientific Conference education for citizenship, Arabic Academy of science and technology, Abu Qir, Alexandria, vol. II.
- Bruner, Jerome. (1960). The Process of Education .Massachase, Harvard University Press.
- Bruner, Jerome .(1981). the Act of Discovery. Harvard Educational Review, Vo. 31, No.1.
- Bolte, Linda A. (1999). Using Concept maps and interpretive Essays for Assessment in mathematics. School Science and mathematics, Vol. (99). No 1. (pp. 19 28).
- Bruner, J. S. (1960). the process of Education. New York, Vintoge, Book.
- Dujari, Anuradha Sodhani. (1994) .The Effect of Two Components of the Dimensions of Learning Model On the science Achievement of Underprepad College Science Students. Reports Research, Tests Questionaires-Eric.Ed.379158.
- Dick, Walter and Diz Robert. (1999) .planning for effective education. 1 translated by Dr. Mohammed Theban Ghazawi, Amman, Hanen publishing house.
- Leach, Edmund. (1977) .construction in social alanthroulogia. translate shawky Fahim, magazine writers, Baghdad, number 10, year XII, pp. 16-24.
- Mari Tawfiq, and Balgess Ahmad. (1983). the facilitator in educational psychology. Amman, Dar Al Furqan.
- Marzano, r. j. Webikrng, d. Wemkti, j. (2000) .dimensions of learning, evaluating performance using model dimensions of education. Translation, Jaber Abdel Hamid and others, Cairo, Dar Al-Quba.
- Marzano, r.j. (1992). the maybe faces of cooperation across the dimensions of learning. Ik -Davidson. & worsham, t. enhancing thinking through cooperative learning, New York, teachers colleges press 7-28.
- Marzano,r.j.(1995).Question Standardized tests measure cognitive skills answer .educational leadership,45-8:66-73.
- Marzano, r.j. & others. (1992) .a different kind of classroom teaching with dimensions of learning. USA: association for supervision and curriculum development.
- Marzano, r.j. &others . (2005). a handbook for classroom management that works, www.marzanoandassociates.com/html/interventions/11/11/2007.
- Marzano, r.j.. (1990) what are the general skills of thinking and do you teach them. Cleaning house, v.71, n.5, p54.
- Novak. J. D. (1995). Concept Mapping to Facilitate Teaching & Learning, Prospects. Vol. (XXV), No. 1 pp 79 86.
- Odea, Mohammed .. (2001) conceptual doctrinal errors diagnosis among students in grade 10 in Islamic education. unpublished master thesis, University of Jordan.
- Qutami, Naifeh . (2001) .teaching thinking for the basic stage. Amman, Dar Al fikr.



- Qutami, Naifeh . (2004) .effective teaching skills. First Edition, Amman, Dar Al-fikr.
- Qutami, Yusuf &Omor, Omaima. (2005) .habits of mind and thinking. Amman, Dar Al-fikr.
- Salama, Adel Abu Alezz. (2002) .methods of teaching science and its role in the development of thinking. 1st floor, House thought of printing, publishing and distribution, Amman.
- Suleiman, Mahmoud Jalal al-Deen . (2004) .the impact of training on model dimensions of learning in performance training for students of teachers in Arabic language. reading and knowledge magazine, number (38), pp. 47-83.
- Tarleton, deen (1992). .dimensions of learning a model for enhancing student thinking and learning. Nova University USA, Colorado.
- Thomposn, m. (1999) . an evaluation of the implementation of the dimensions of learning program in an Australian independent boys school. International education journal, 1(1); 45-60 ,the Washington. Ally and Bach Woolfolk, A.E. (1987) . Educational Psychology(6).
- Walker, Grayson H. (2002 .(Concept Mapping and Curriculum Design .Teaching Resource Center, the University of Tennessee.

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage: http://www.iiste.org

## **CALL FOR JOURNAL PAPERS**

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

**Prospective authors of journals can find the submission instruction on the following page:** <a href="http://www.iiste.org/journals/">http://www.iiste.org/journals/</a> All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

# MORE RESOURCES

Book publication information: <a href="http://www.iiste.org/book/">http://www.iiste.org/book/</a>

Academic conference: <a href="http://www.iiste.org/conference/upcoming-conferences-call-for-paper/">http://www.iiste.org/conference/upcoming-conferences-call-for-paper/</a>

# **IISTE Knowledge Sharing Partners**

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digtial Library, NewJour, Google Scholar

























